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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(54) Title: INTERACTIVE MARKETING NETWORK AND PROCESS USING ELECTRONIC CERTIFICATES

(57) Abstract

A data processing system issuing electronic certificates (6) through "online" networks of personal computers, televisions, or other devices (3) with video monitors or telephones. Each electronic certificate (6) includes transaction data and identification data, and can be printed out on a printing device (4) linked to a consumer's personal input device (3), or electronically stored in a designated database (5) until a specified expiration date. The certificate can be used for various purposes, including use as a coupon for a discounted price on a product or service, proof of a gift or award, proof of reservation, or proof of payment. Consumers access the data processing system online, browse among their choices, and make their selections. The data processing system provides reports on the selected certificates and their use following selection. Certificate issuers (1) also have online access to the data processing system and can create or revise offers, and provide various instructions pertaining to the certificates to be issued, including limitations as to the number of certificates to be issued in total and to each individual consumer.

COUPON FLOW

INTERACTIVE MARKETING NETWORK AND PROCESS USING ELECTRONIC CERTIFICATES

Background of the Invention

The present invention generally relates to the use of an interactive marketing network. More specifically, the present invention relates to the interactive use by service providers and consumers of electronic certificates over online networks.

Increasingly, consumers are gaining direct access to data bases for information and entertainment, whether through phone lines and coaxial cable or by wireless connections from cell systems and satellites. With this so-called "online" access, consumers can use data bases for a range of activities at virtually any time. Besides granting freedom to the consumer, online access gives added efficiencies to companies merchandising products and services, whether those products are sold directly to the consumer by mail or in a store.

At the same time, various types of transactions are currently consummated using certificates such as coupons, tickets, etc. These certificates typically contain data (referred to in the claims as "transaction data") describing the particular transaction (e.g., in the case of a coupon, the transaction data would include a product description, the coupon amount, and the expiration date). These certificates also typically contain data (referred to in the claims as "identification data") such various numbers, letters, barcodes or other symbols sufficient to uniquely identify each certificate.

The need arises for creation of an online "electronic certificate" that can be used for promotional or transactional purposes, much as coupons have been used in such traditional marketing vehicles as newspapers and mail packs. Beyond offering a discount as an incentive to buy a feature product, the coupon is also currency, printed in quantities limited by the issuer and often carrying unique serial numbers, expiration dates and "source codes" which indicate the means by which it was distributed (e.g. newspaper, mail list, in-store dispenser, etc.), so issuers can track the effectiveness of each marketing medium.

Known coupon dispensing systems, for example, fail to interactively communicate between a service center and a third party, as pointed out in U.S. Patent No. 5,303,197 to Axler. While the Axler patent permits an operator to periodically "visit" a dispensing machine, this does not allow "real time" interactivity (e.g., it does not permit the operator to access and analyze demographical data contemporaneous with its input). Nor does Axler (or any other known prior art systems) envision the creation of an online "electronic certificate," as will be described below.

A data processing system and method according to the present invention successfully emulates the attributes of a coupon over an online network (i.e., an "electronic coupon" is created). Moreover, given the direct access to consumers, the data processing system exceeds the capabilities of traditional coupons by providing

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issuers a greater degree of control in targeting the offer, restricting its use and tracking both the selection and redemption process. The data processing system's controls also make it possible for service providers, such as restaurants and hotels, to use an online electronic certificate as a promotional means and a way to lower overhead in providing such transactions as dining, travel and ticket reservations.

Summary of the Invention

The present invention provides a data processing system and method permitting consumers to access a data base online and use lectronic certificates. The data processing system identifies and marks each electronic certificate with a code distinguishing it from all other certificates and with another code identifying the user. In addition, the data processing system permits coupon issuers to go online as well to create the certificate and specify controls that restrict the total number of certificates issued as well as the number to be issued to each individual.

The data processing system also preferably issues reports as soon as the consumers choose a certificate from the data base and have it downloaded to their resident storage systems or "remote computer terminals." Reports can be generated that show whether the consumer had the certificate printed with the consumer's printer or had it sent, as a computer record, back to the service

data base. All of these reports can assist the issuer in research, security, and confirmation of a purchase or reservation.

In a preferred embodiment, the data processing system of the present invention can issue electronic certificates created by an operator, and permits the storing and retrieval of data pertaining to the certificates entered by users of a communicating first set of remote computer terminals. This embodiment includes a service system including a first computer processor for processing data and a first computer storage system for storing data on a storage medium. Also included is an issuer system including a second computer processor for processing data and a second computer storage system for storing data on a storage medium. The issuer system permits the operator to provide the service system with instructions for issuing a predetermined type and number of the electronic certificates. The service system is in selective electrical communication with both the issuer system and each of the remote computer terminals. Preselected identification data stored within either the first or the second computer storage systems and useable by either the first or the second computer processors is used to provide the first computer processor with appropriate instructions for associating each of the issued electronic certificates with one or more identifying symbols. Users of the remote computer terminals are then permitted to controllably access the electronic certificates.

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A process for providing an interactive marketing system
capable of using electronic certificates that can be accessed
online by remote computer terminals linked within a computer
network also forms part of the present invention.   In this
embodiment, an online network is provided including an issuing site
having a first computer processor and a first computer storage
system, and a service site having a second computer processor and
a second computer storage system. The issuing site and the service
site are in electrical communication, and the service site and each
of the remote computer terminals are also in electrical
communication. Instructions for issuing a predetermined number of
electronic certificates are transmitted from the issuing site to
the service site, each of the certificates including transaction
data. The service site, upon receiving these instructions, revises
the electronic certificates by providing the issued electronic
certificates with unique identification data.   The revised
electronic certificates can then be accessed by users of the remote
computer terminals. Consumer data entered by the remote computer
terminal users can be provided to the service site, and then
selectively transmitted to the issuing site. Each of these steps
can be selectively repeated, as required.

In a second preferred process embodiment of the present
invention, a process for selectively storing, retrieving and
transmitting reservation data is provided. First, a computer

operating system is provided, including an issuing site with an issuing computer having an initial set of reservation instructions, and a service site with a service computer also having the initial set of reservation instructions. The issuing and service computers of the computer operating system are in electrical communication. Next, updated reservation data is transmitted from remote computer terminals electronically linked to the service computer. The updated reservation data is used by the service computer to revise the initial set of reservation instructions, resulting in a revised set of reservation instructions contained within the service computer. Now, data data pertaining to the revised set of reservation instructions is transmitted from the service computer to the issuing computer. The data pertaining to the reservation instructions can be contained within the service computer in the form of an electronic reservation coupon, which can be printed by the remote computer terminal users. Again, these steps can be selectively repeated, as required.

In its broadest embodiment, the system of the present invention is used to create an electronic certificate. This system includes a computer system that can process and store data. The computer system is capable of creating a plurality of electronic certificates. Each of the electronic certificates contains transaction data and unique identification data, and can be accessed by remote users linked to the computer system.

Brief Description of the Drawings

The novel features which are characteristic of the present invention are set forth in the appended claims. However, the invention's preferred embodiments, together with further objects and attendant advantages, will be best understood by reference to the following detailed description taken in connection with the accompanying drawings in which:

FIGURE 1 depicts the flow of information in a system delivering online coupons to consumers;

FIGURE 2 is a flowchart of a software routine for a coupon issuer according to the present invention;

FIGURE 3 is a flowchart of a software routine for the online coupon service provider according to the present invention;

FIGURE 4 is a flowchart of a software routine for the consumer using the coupon service according tot he present invention;

FIGURE 5 depicts the flow of information in a system providing for restaurant reservations;

FIGURE 6 is a flowchart of a software routine for a restaurant according to the present invention;

FIGURE 7 is a flowchart of a software routine for the reservation service provider according to the present invention; and

FIGURE 8 is a flowchart of a software routine for the consumer

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using the reservation service according to the present invention.

Detailed Description of the First Preferred Embodiment

The present invention is directed to a data processing system and method for use in dispensing and using electronic certificates such as coupons over online systems. FIGURE 1 is an overview showing how the information and activities flow from creation of the electronic certificate to its selection and printing by the consumer, and its ultimate redemption. The process starts with the coupon issuer 1 who creates the coupon instructions (which will typically include the transaction data) and downloads them to the service data base 2 which receives the instructions and assigns the identification data and issue restrictions. The service data base 2 can then display the active coupon files to the consumer, and make the designated amount available for downloading to the consumer's personal computer (PC) 3 or other input device. The consumer's PC 3 may download no more electronic coupons than the number specified in the coupon issuer 1 instructions.

Anytime before a coupon file's expiration date, the consumer may use one of two methods to redeem it, as shown in FIGURE 1. First, the electronic coupon can be printed with a printer attached to the consumer PC 3 or other input device. Since files relating to the electronic coupon remain in the storage device of the consumer's PC even after the consumer signs off with the service

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data base 2, the consumer can quickly disconnect from the online system, and print the coupon later, at his/her leisure. Printed on the coupon 6 would be the expiration date, a unique serial number (distinguishing that coupon from all others) and a barcode with the personal identification number (PIN) of the consumer. This identification data is preferably assigned by the service data base 2; the PIN number can be pre-assigned to individual consumers when they register for the system. That printed coupon can then be submitted during check-out from a participating retail outlet and the stated credit would be deducted from the consumer's bill.

With the second method of redeeming a coupon, the consumer PC 2 transmits the selected coupon file 5 to a data base 7 designated by the issuer, where it is stored with the same information as the printed coupon, including the transaction and identification data. The check-out system at the retail outlet 8 would then automatically activate the discount if the consumer presented a store credit card or a third-party credit card and purchased the designated product. Preferably, the electronic transfer of the coupon from the consumer PC to data base 7 can only be done on-line. (This permits the service data base 2 to accurately track the coupon's printing or presentation activity, as discussed below.)

Information can also be passed back up through the system, first to the service data base 2 and then on to the coupon issuer

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1. Thus, information about the coupon files or other demographical information, for example ("consumer data") can be downloaded by the consumer PC 3 and the coupon files can be sent to the consumer's printer 4 or to an issuer data base 7. Redeemed printed coupons 6 could also have their barcodes scanned by the service to identify, for research purposes, the consumers who used the coupons. (For increased security, at check-out the barcode could be compared to ensure the consumer identity corresponds with the barcode.) Such information could also be transmitted from a coupon file 5 that is redeemed automatically.

FIGURE 2 depicts a software routine enabling the coupon issuer to download new coupon instructions, change old instructions, or upload information on coupon use. The routine begins 9 with dialing up the coupon service 10. To access the system, the issuer first enters a login password 11 (at which time the use of a pre-assigned registration number can be required). A main menu 12 is then displayed. Among the choices is creating new coupon instructions, which starts with a download of coupon templates 13 along with commands to set the number of coupons to be issued (both in total and to each individual consumer) and commands to set expiration dates 14. Commands can also be issued to limit coupon distribution by area or by a consumer's household profile 15. These coupon instructions are added to previously issued coupons. The issuer can review these electronic coupons 16 and then modify

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instructions as to (e.g.) numbers issued 17 or expiration dates 18.
Previously issued coupons could also be deleted from the system
should the issuer decide to do so.   (They will be automatically
deleted from the system following expiration.) These changes are
used to update the coupon instructions 19 resident in the service
data base.

Issuers can also access the system for usage history 20 to
determine the remaining number of previously issued coupons.
Further, the issuer can upload reports 21 based on the number of
coupons selected 22, printed 23, and redeemed 24. Another function
of the software is to analyze use based on the shopping habits and
demographic characteristics of the user. This consumer data can be
contained in the household profile, submitted by the consumer to
register for the system and periodically updated with additional
questions and usage history. An issuer can display information
about those who have selected the issuers' coupons, breaking down
use by such factors as region and demographics 25.   In addition,
the issuer can upload user reports 26 based on selection 27, print
commands 28, and redemption 29.

The service data base, as shown in FIGURE 3, is the bridge
between the coupon issuer 1 and the consumer 3, and permits the
flow of both incoming and outgoing information. First, over an
online network 33, the service receives the coupon instructions 19
sent by the coupon issuer 1. The service software takes the

instructions and assigns the requisite serial numbers 34 and issue restrictions. These new or changed coupons are then sent to update 35 the active service coupons 36 already in disk storage for that issuer. These active service coupons are part of the outgoing information sent to the consumer over the online network 37. Consumer usage information goes back the other way through the network 38. The service system takes usage information 39 on selection and updates the number of active services coupons remaining. Also incoming from the consumer is household profile information 41. The service takes this information and updates user reports 42 which are sent back through the network 44 to the issuer, completing the information circuit.

FIGURE 4 displays the software routine for the consumer. It starts 45 with a display of the main menu 46. The consumer may display the coupons that have already been downloaded and are resident on the consumer's PC 55. There are two methods by which the consumer could activate the coupons 48. The first would be to send the coupon file 49 to the consumer's printer. Along the way, it is barcoded with the consumer's PIN 50, which is accessed from the household profile data base 64. The consumer's printer 4 then prints out the coupon 6. Upon activation 48, a coupon could also be transmitted as a computer file 51, back through the network 52, to a data base chosen by the issuer. When coupons are activated 48, the consumer's resident software removes the coupon file that

has been printed 54, updating the data base of downloaded electronic coupons 55 and the resident coupon display 47. The system also automatically removes expired coupon files that have yet to be activated 56. Another function of the resident software is displaying 62 and updating 63 the household profile 64 with information entered by the consumer in response to questions submitted by the service.

To access a new selection of coupons, the consumer can dial up the service data base 58, enter the PIN number 59, and view a display of all active service coupons 60. These coupons can then be selected and downloaded 61 to the consumer's PC. While online, the consumer's software automatically sends back to the service data base information on the consumer's selection and printing history 57, as well as information on those downloaded coupon files that have expired 56. It also sends back updated information on the consumer's household profile 65.

Detailed Description of the Second Preferred Embodiment

A second embodiment of the present invention is directed to a data processing system and method for use in automating reservations over online systems for restaurants, hotels, or other service establishments. FIGURE 5 is an overview showing how the information and activities flow from the initial assignment of the reservation by the restaurant, to its selection by the consumer and

the ultimate printing of a confirmation slip by the consumer's printer.

The automated reservation process starts with the host computer of the restaurant 66 which sets the number, time, and type of reservations available, and downloads those instructions to the reservation service 67, which receives the instructions and assigns the requisite confirmation numbers and issue restrictions. The reservation service 67 can then display the service's reservations to the consumer, and make them available for access through the consumer's personal computer (PC) 68 or other input device. Once the consumer chooses the restaurant, time and type of reservation (i.e. for two, for four, etc.), the data processing system immediately notifies the restaurant with a description of the reservation, the name and phone number of the consumer and the confirmation number. This information can be sent through the online computer network and also preferably by a designated fax machine (which may be more convenient for the restaurant's front-office staff than a computer). The consumer can then use a printer 69 attached to the consumer PC 68, or another input device, to print a confirmation slip 70. The confirmation slip can have a description of the reservation, the name and phone number of the consumer and the confirmation number. This slip would be presented to reception personnel upon the consumer's arrival at the restaurant and corroborated with the information that had

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previously been sent to the restaurant through the system and fax machine.

Feeding back up through the system, first to the service data base 67, and then on to the restaurant 66, is information about the reservations made by the consumer PC 68 and the profile the consumer has submitted as part of the registration process for the service ("consumer data"). This profile is continually updated by the consumer, in response to additional questions, and is also continually updated by the system, in tracking the reservations the consumer has made.

FIGURE 6 depicts a software routine for the restaurant to set aside reservations for the system, change old reservations, and upload information on reservation use. The routine begins 71 with dialing up the reservation service 72. To access the system, the restaurant first enters a login password 73. A main menu 74 is then displayed. Among the choices is setting new reservations 75. The type of reservation and number of reservations is determined by setting available tables 76 (e.g., the number of tables available for seating two 78, four 77, and six 79). Instructions also include setting the day and time for the reservations 80. These reservation instructions can be added to previously issued, initial reservation instructions in disk storage 81.

Still referring to FIGURE 6, the software can also be used to change previously issued reservations. The restaurant can review

these electronic reservati n "coupons" 82 and then modify instructions on (e.g.) the numbers of tables available 83. In this operation previously issued reservations could be deleted from the system at the restaurant's option. The updated reservation instructions 81 are then sent to the service data base. The system can also be accessed by restaurants for usage history 85 to view the names and phone numbers of those who have made reservations 86, and to determine the number of remaining reservations for a given hour 87. The restaurant can also upload information 88 on those who have used the service to book reservations at a particular location. A user profile could be displayed 89 and a list of users could be displayed 93, or the restaurant could print user reports 90, and create a hard copy of the user profile 91 or user list 92.

The reservation service, as shown in FIGURE 7, is again the bridge between the restaurant 66 and the consumer 68, and handles both incoming and outgoing information. First, over an online network 94, the service receives the reservation instructions 95 sent by the restaurant 66. The service software takes the instructions and assigns the requisite confirmation numbers to each reservation 96. These new or changed reservations are then sent to update 97 the active service reservations 98 already in disk storage for the restaurant. These active service reservations are part of the outgoing information sent to the consumer 68 over the online network 99.

Still referring to FIGURE 7, c nsumer usage information also m ves from the consumer's PC back to the restaurant through the network 100. The service system takes the reservation made by the c nsumer 102 and updates the number of active service reservations remaining 103. This information is also used to update the restaurant 104 through a transmission to the restaurant fax machine 105 and through the computer network 106. Also incoming from the consumer is user profile information 101 which is sent back to the restaurant through the computer network 106.

FIGURE 8 displays the software routine for the consumer. It starts 107 with a display of the main menu 108. The consumer can dial up the service data base 109, enter the PIN number 110, and view a display of all active service reservations 111. A reservation can then be selected and downloaded 112 to the consumer's PC, where it is sent to the printer 113. Along the way, the name and phone number of the consumer is taken from the user profile information storage 117 and added 114 to print instructions for the confirmation slip 116. A printer attached to the consumer PC can be used to print 115 the confirmation slip 116.

While online, the consumer's software sends back to the service information on the consumer's reservation 119 to update the remaining service reservations. The reservation also updates the consumer's user profile 117. The updated user profile information is also automatically sent back to the service while the consumer

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is online 120. The consumer can display the user pr file 121 and update the profile 122 with answers to questions prompted to the consumer both during and after the registration process.

It can be appreciated that the present invention can be designed for use with various online software, including American Online®, Prodigy® and Microsoft®.

It will also be appreciated by those skilled in the art that various changes and modifications can be made to the illustrated embodiments without departing from the spirit of the present invention. For example, while the preferred embodiments describe particular types of electronic certificates (coupons and reservation slips), various other types of electronic certificates can be used by systems designed according to the present invention, including certificates used as proof of a gift, award or payment, and virtually any other types of certificates or vouchers. As another example, while the service data base 2 will typically assign identification data to the electronic certificate, this data could be transmitted and assigned together with the transaction data by the coupon issuer 1, or even by a third remote site. Also, rather than utilizing separate issuer and service computers, they could be consolidated into a single computer for particular applications. Further, use could be made of multiple issuer computers, multiple service computers, or combinations of the same, given a particular application. Still further, while the preferred

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embodiments have described users with "remote computer terminals" that consist of personal computers, users might access the marketing network of the present invention through various other accessing media, such as phone lines, televisions, or individual access stations dedicated for the use and dispensing of various certificates (much like cash machines are used today). These other accessing media would include appropriate software and hardware permitting interactive capabilities with remote computers, similar to that described in the preferred embodiments utilizing the personal computers. These and other modifications and changes within the spirit and scope of the present invention are intended to be covered by the appended claims.

We claim:

1. A data processing system for issuing electronic
certificates created by an operator, and for permitting the storing
and retrieval of data pertaining to the certificates entered by
users of a communicating first set of remote computer terminals,
comprising:

a service system including a first computer processor for
processing data and a first computer storage system for storing
data on a storage medium;

an issuer system including a second computer processor
for processing data and a second computer storage system for
storing data on a storage medium, the issuer system permitting the
operator to provide the service system with instructions for
issuing a predetermined type and number of the electronic
certificates;

the service system being in selective electrical
communication with both the issuer system and each of the remote
computer terminals;

preselected identification data stored within either the
first or the second computer storage systems and useable by either
the first or the second computer processor for providing the first
computer processor with appropriate instructions for associating
each of the issued electronic certificates with one or more

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identifying symbols; and

the remote computer terminals permitting the users to controllably access the electronic certificates.

2.   The data processing system of Claim 1, wherein the remote computer terminals permit consumer data entered by the remote computer terminal users to be transmitted to either the service system or the issuer system.

3.   The data processing system of Claim 1, wherein the first computer processor permits the electronic certificates previously associated with the identifying symbols to be transmitted from the service system to the issuer system.

4.   The data processing system of Claim 1, wherein the electronic certificate is a redeemable coupon.

5.   The data processing system of Claim 4, wherein the remote computer terminal is operably connected to a printer, permitting the printing of electronic certificates that constitute redeemable coupons, with each redeemable coupon corresponding to a particular product.

6.   The data processing system of Claim 5, further comprising

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a second set f remote computer terminals in electrical
communication with the service system for selectively receiving the
coupon transmitted from the service system, the second set of
remote computer terminals providing instructions indicating that
the coupons can be redeemed upon the purchase of the products
corresponding to the coupons by the user.

7.   The data processing system of Claim 1, wherein the
identifying symbols associated with each electronic certificate
include an expiration date, a unique certificate serial number, and
a personal identification number capable of reproduction in bar-
code form.

8.   The data processing system of Claim 1, wherein the
service system can automatically review, store and provide to the
issuer system: (i) preselected consumer data entered by the remote
computer terminal users; or (ii) data pertaining to the use,
issuance or revisions to the electronic certificates.

9.   The data processing system of Claim 1, wherein the number
of certificates which can be accessed by the remote computer
terminal users is controllably restricted.

10.   A system for creating electronic certificates that can be accessed by remote users, comprising:

a computer system linked to remote users for processing and storing data, the computer system capable of creating a plurality of electronic certificates, each of the electronic certificates containing transaction data and unique identification data, the electronic certificates being selectively accessible to the remote users.

11.   A   data   processing   system   for   issuing   electronic certificates created by an operator, and for permitting the storing and retrieval of data pertaining to the certificates entered by users of communicating remote computer terminals, comprising:

a service system including means for processing data and for storing data;

an issuer system including means for processing data and for storing data, the issuer system permitting the operator to provide   the   service   system   with   instructions   for   issuing   a predetermined type and number of the electronic certificates;

the   service   system   being   in   selective   electrical communication with both the issuer system and each of the remote computer terminals; and

preselected identification data stored within either the issuer or the service system, for providing the service system with

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appropriate instructions for associating each of the issued electronic certificates with one or more identifying symbols.

12. A system for creating an electronic certificate containing transaction data and identification data, comprising:

a service system including means for processing data and for storing data;

an issuer system including means for processing data and for storing data, the issuer system transmitting electronic certificates containing the transaction data to the service system; and

the service system receiving the electronic certificates containing the transaction data, and associating each electronic certificate with the identification data.

13. A data processing system for issuing electronic certificates created by an operator, and for permitting the storing and retrieval of data pertaining to the certificates entered by users of communicating remote computer terminals, comprising:

an issuer system located at an issuer site and including a first computer processor for processing data and a first computer storage system for storing data on a storage medium, the s cond computer processor permitting the issuance of a predetermined number of the electronic certificates, each of the

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electronic certificates having transaction data;

an operator system located at a service site and including a second computer processor for processing data and a second computer storage system for storing data on a storage medium, the operator system being in electrical communication with both the issuer system and the remote computer terminals and permitting each of the electronic certificates to be associated with identification data;

the operator system permitting the remote computer terminal users to access the electronic certificates, and to select certificates for downloading at the remote computer terminal site;

the operator system also nearly simultaneously storing consumer data transmitted from the remote computer terminal users, and permitting the selective access of this data by the issuer system.

14. A process for providing an interactive marketing system capable of using electronic certificates that can be accessed online by remote computer terminals linked within a computer network, comprising the steps of:

a. providing an online network including an issuing site having a first computer processor and a first computer storage system, and a service site having a second computer processor and a second computer storage system, the issuing site and the service

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site being in electrical communication, and the service site and each of the remote computer terminals being in electrical communication;

      b.   send instruction from the issuing suite to the service site for issuing a predetermined number of electronic certificates, each of the certificates including transaction data;

      c.   transmitting the data pertaining to the electronic certificates to the service site, and creating updated electronic certificates by providing the issued electronic certificates with identification data;

      d.   transmitting the data pertaining to the updated electronic certificates to the service site.

     15.   The process of Claim 14, further comprising the steps of:

      e.   providing the service site with consumer data transmitted from the remote computer terminals;

      f.   transmitting the consumer data from the service site to the issuing site; and

      g.   repeating steps b.-f.

     16.   The process of Claim 14, further comprising the step of selectively organizing the consumer data, and selectively transmitting this data to either the issuing site or the service site.

17.   A process for selectively storing, retrieving and transmitting reservation data, comprising the steps of:

a.   providing a computer operating system including an issuing site with an issuing computer having an initial set of reservation instructions, and a service site with a service computer also having the initial set of reservation instructions, the issuing and service computers of the computer operating system being in electrical communication;

b.   transmitting updated reservation data from remote computer terminals electronically linked to the service computer, the updated reservation data being used by the service computer to revise the initial set of reservation instructions, resulting in a revised set of reservation instructions contained within the service computer;

c.   transmitting the data pertaining to the revised set of reservation instructions from the service computer to the issuing computer; and

d.   selectively repeating steps b. and c.

18.   The process of Claim 17, wherein the data pertaining to the reservation instructions is contained within the service computer as an electronic reservation coupon, and further comprising the step of printing the reservation coupon.

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19. A data processing system f r issuing electronic certificates by an operator, and for permitting the storing and retrieval of data pertaining to the certificates entered by users of communicating remote computer terminals, comprising:

a service system including means for processing data and for storing data;

an issuer system including means for processing data and f r storing data, the issuer system permitting the operator to provide the service system with instructions for conditionally issuing a predetermined type and number of the electronic certificates;

the service system being in selective electrical communication with both the issuer system and each of the remote computer terminals;

preselected identification data stored within either the issuer or the service system, for providing the service system with appropriate instructions for associating each of the issued electronic certificates with one or more identifying symbols; and

the service system conditioning the issuance of the electronic certificates upon the entry of specific consumer data requested of the remote computer terminal user by the service system.
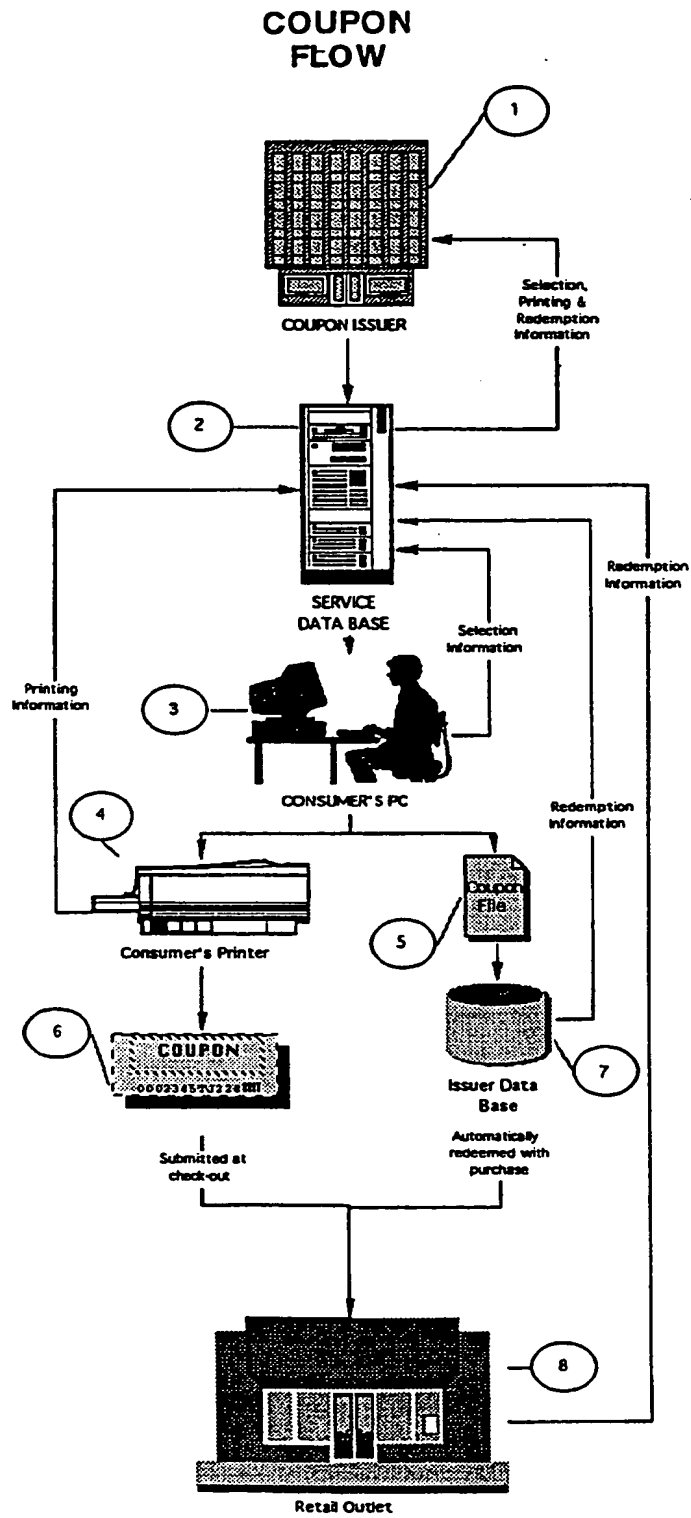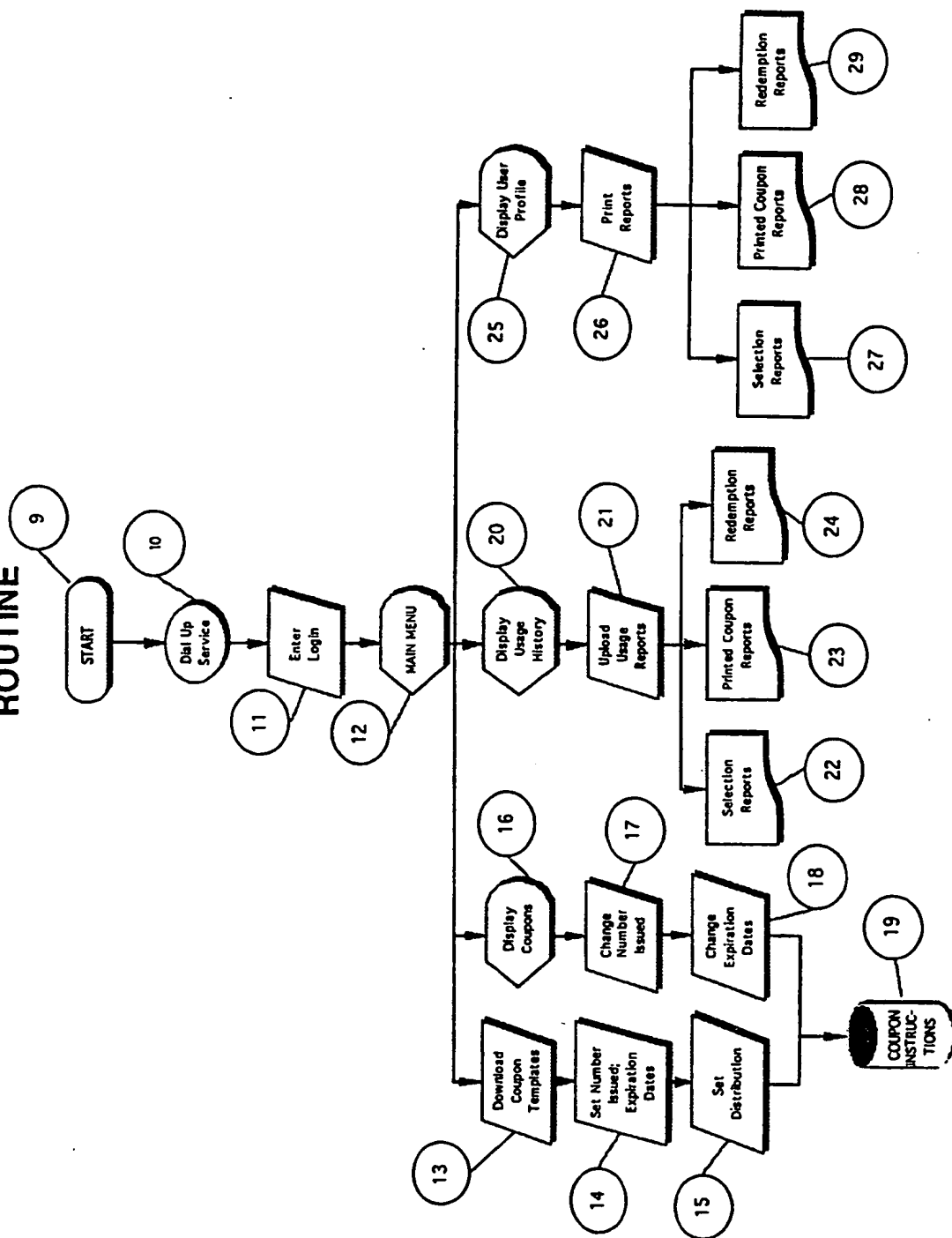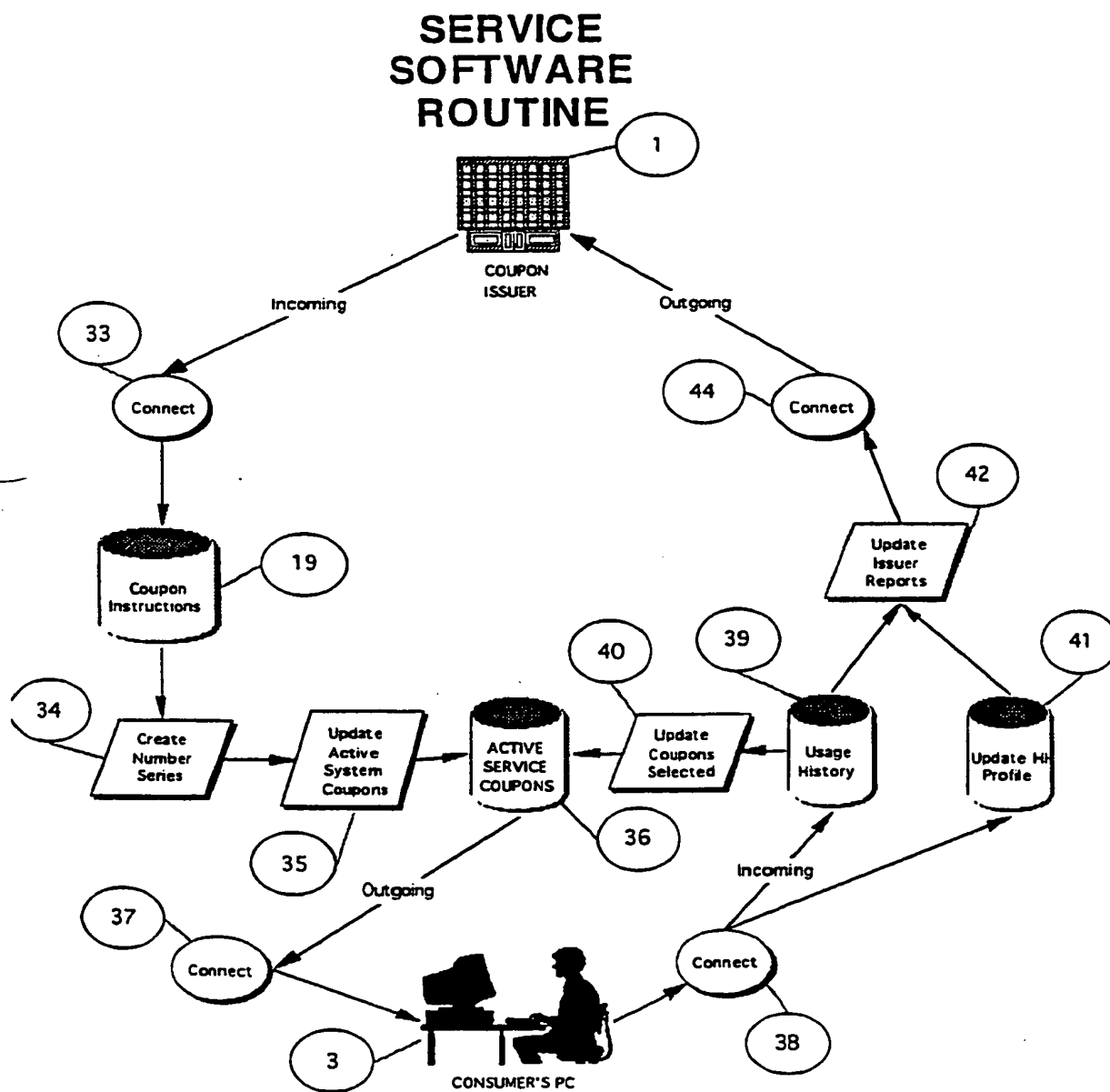
COUPON FLOW

FIG. 1

COUPON ISSUER SOFTWARE ROUTINE

FIG. 2

SERVICE SOFTWARE ROUTINE

COUPON ISSUER

Incoming

Outgoing

33   Connect

44   Connect

42

19   Coupon Instructions

Update Issuer Reports

34   Create Number Series

Update Active System Coupons

ACTIVE SERVICE COUPONS

Update Coupons Selected

Usage History

Update History Profile

40

39

41

36

35

Outgoing

Incoming

37   Connect

Connect   38

3

CONSUMER'S PC

FIG. 3

CONSUMER
SOFTWARE
ROUTINE

FIG 4

RESERVATON FLOW

(66)

RESTAURANT ADVERTISER

Reservation
Confirmation
Via Fax or
Modem

Sets Available
Reservations

Submitted at
Reception

(67)

RESERVATION
SERVICE

Reservation
Information

(68)

CONSUMER'S PC

(69)

Consumer's Printer

RESERVATION
J. Smith - (222) 222-2222
Res #1234

(70)

CONSUMER CONFIRMATION
SLIP

FIG. 5
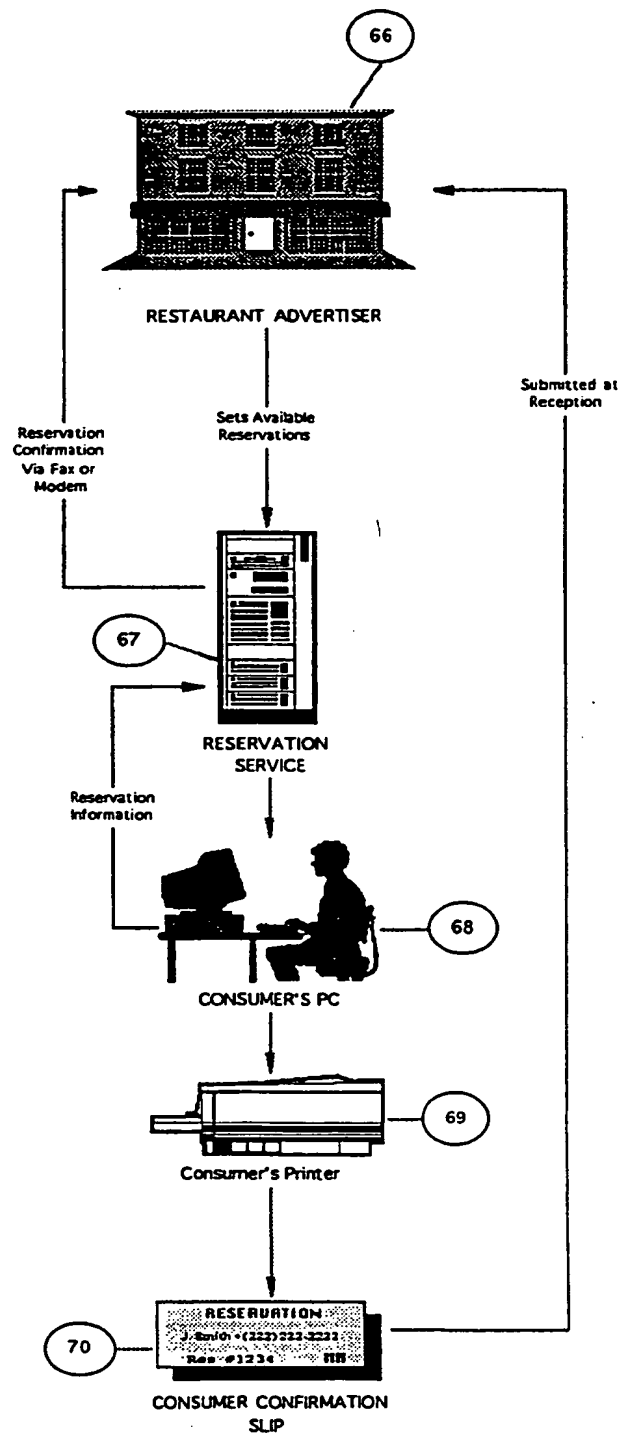
RESTAURANT
ADVERTISER
SOFTWARE
ROUTINE
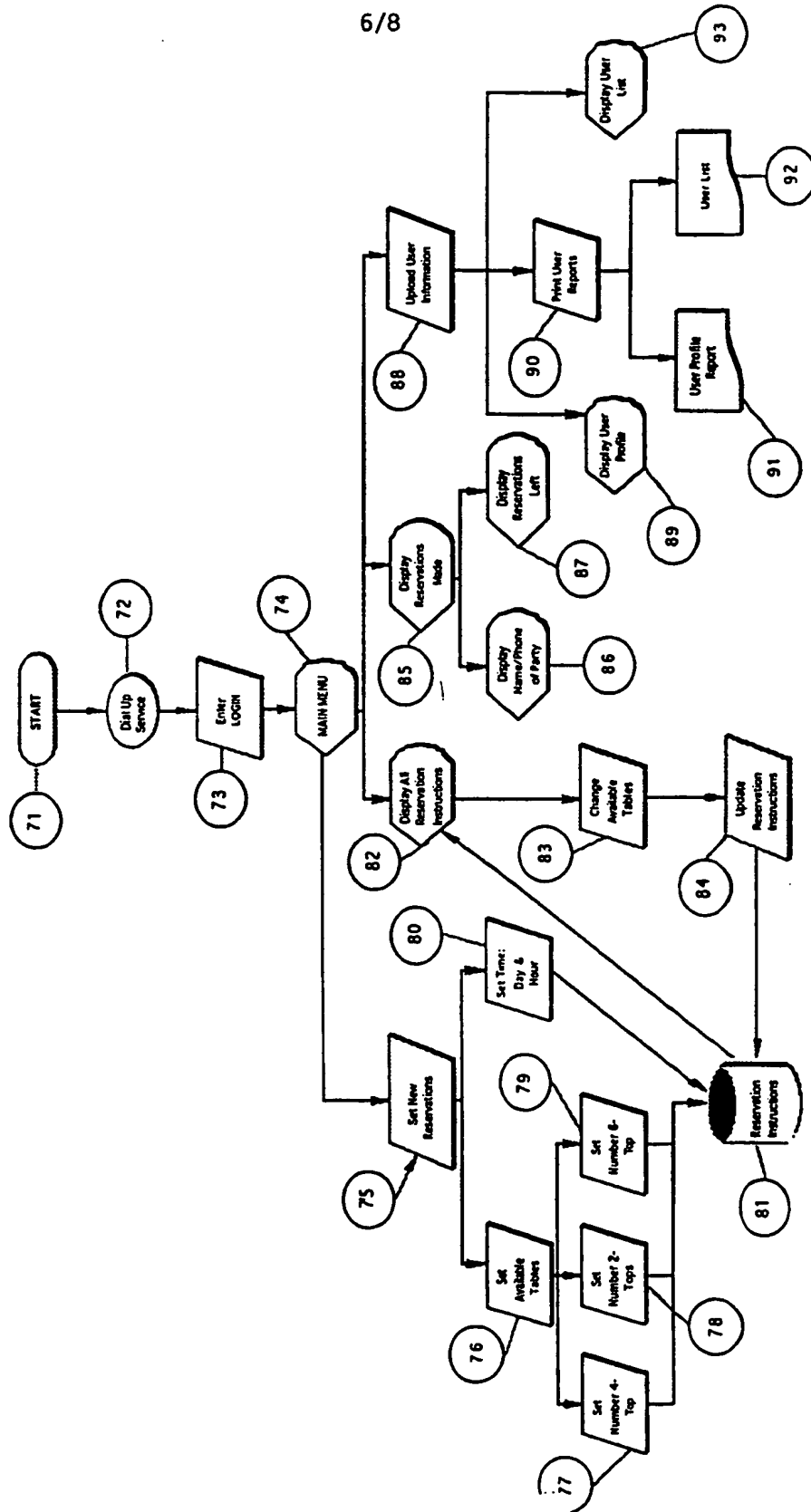
FIG. 6

RESERVATION
SERVICE
SOFTWARE
ROUTINE
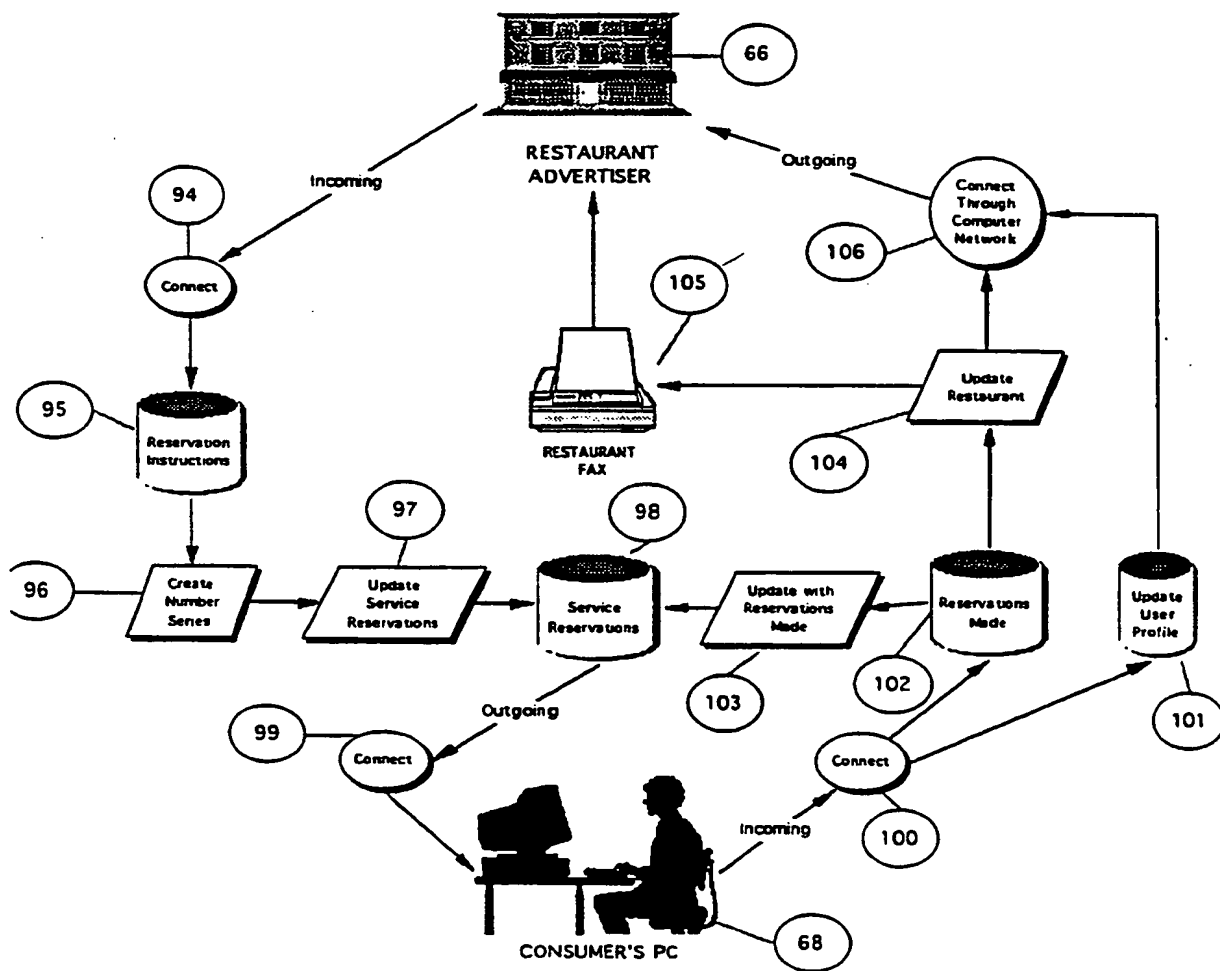
FIG. 7

CONSUMER
SOFTWARE
ROUTINE
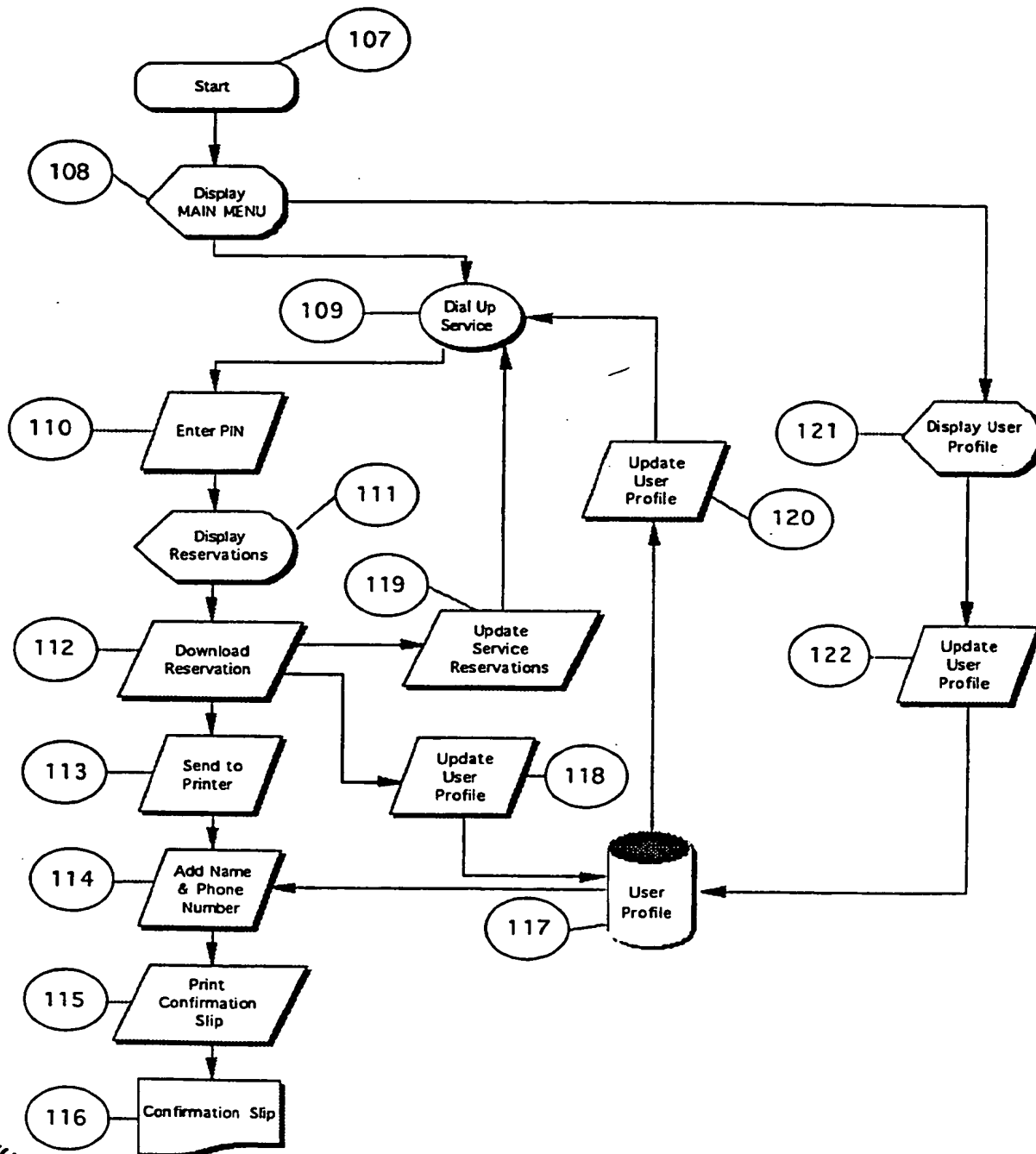
FIG. 8

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :G06F 17/60

US CL : 364/401R

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 364/401R, 402, 405, 406; 235/375, 381, 383, 385

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DIALOG, APS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US, A, 4,674,041 (LEMON ET AL) 16 June 1987, see col. 1, line 55 to col. 6, line 50.	1-19
Y	US, A, 5,185,695 (PRUCHNICKI) 09 February 1993, see Abstract, col. 2, line 57 to col. 3, line 40, col. 4, lines 57-64, col. 5, lines 1-16, col. 7, lines 48-51.	1-19
A,P	US, A, 5,502,636 (CLARKE) 26 March 1996, see entire document.	1-19
A	US, A, 5,305,195 (MURPHY) 19 April 1994, see entire document.	1-19
A	US, A, 5,305,197 (AXLER ET AL) 19 April 1994, see entire document.	1-19

[X] Further documents are listed in the continuation of Box C.	[ ] See patent family annex.

*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be part of particular relevance		
"E"	earlier document published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed	"&"	document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
08 OCTOBER 1996	28 OCT 1996

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer GAIL O. HAYES
Facsimile No. (703) 305-3230	Telephone No. (703) 305-9711

Form PCT/ISA/210 (second sheet)(July 1992)*

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	M2 Presswire, 26 September 1995, Dworsky, "Consumer World Launched on the Internet", see entire document.	14-16
Y,P	PC Week, Volume 12, No. 44, 06 November 1995, Moeller, " Let's Hang Out at the E-mall: eShop Opens its Doors to Tower Records", see entire document.	14-16